

Identification_Information:

Citation:

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Originator: NOAA Fisheries Service

Publication_Date: 20060103

Title:

Habitat availability and utilization by nektonic and benthic organisms in Halls Lake, West Galveston Bay, Texas: May 17-18, 1990.

Description:

Abstract:

Twenty-four 1.8 m diameter drop samples were taken in Hall's Lake in West Galveston Bay during May, 1990 on daylight flood tides. Over 3,000 fish, shrimp, and crabs were collected from about 39 taxa.

Purpose:

Identify and describe the relationship between fishery productivity and the coastal environment. Specifically, to provide info on the relative value of estuarine habitats for fishery species.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 19900517

Ending_Date: 19900518

Currentness_Reference: ground condition

Status:

Progress: complete

Maintenance_and_Update_Frequency: As necessary

Spatial_Domain:

Bounding_Coordinates:

North_Bounding_Coordinate: 29.29

South_Bounding_Coordinate: 29.21

West_Bounding_Coordinate: -95.02

East_Bounding_Coordinate: -94.89

Keywords:

Theme:

Theme_Keyword_Thesaurus: None

Theme_Keyword: distribution

Theme_Keyword: abundance

Theme_Keyword: predator

Theme_Keyword: prey

Theme_Keyword: estuarine dependent

Theme_Keyword: 1.8 m diameter cylindrical drop sampler

Theme_Keyword: submerged aquatic vegetation

Theme_Keyword: nursery habitat

Theme_Keyword: brown shrimp

Theme_Keyword: white shrimp

Theme_Keyword: pink shrimp

Theme_Keyword: Farfantepenaeus aztecus
Theme_Keyword: Litopenaeus setiferus
Theme_Keyword: Farfantepenaeus duorarum
Theme_Keyword: macrofauna
Theme_Keyword: salt marsh
Theme_Keyword: fish
Theme_Keyword: benthos
Theme_Keyword: crabs
Theme_Keyword: invertebrates

Place:

Place_Keyword_Thesaurus:
Place_Keyword: Halls Lake
Place_Keyword: Texas
Place_Keyword: West Galveston Bay
Place_Keyword: Gulf of Mexico

Access_Constraints:

Use_Constraints:

Data set is not for use in litigation. While efforts have been made to ensure that these data are accurate and reliable, NOAA cannot assume liability for any damages or misrepresentations caused by inaccuracies in these data, or as a result of these data being used on a particular system. NOAA makes no warranty, expressed or implied, nor does distribution constitute any such warranty.

Point_of_Contact:

Contact_Information:

Contact_Organization_Primary:
Contact_Organization:
NOAA Fisheries Service, formerly National
Marine Fisheries Service, Fishery Ecology Branch.
Contact_Person: Dr. Jim Ditty

Contact_Address:

Address_Type: mailing and physical
Address: Galveston Laboratory, 4700 Avenue U
City: Galveston
State_or_Province: Texas
Postal_Code: 77551-5997
Country: Unites States of America
Contact_Voice_Telephone: 409-766-3500

Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report:

Data were entered into spreadsheets and checked against the raw data sheet to avoid entry errors.

Logical_Consistency_Report:

Completeness_Report:

Lineage:

Process_Step:

Process_Description:

Sampling Gear Description:

The 1.8 m diameter cylindrical drop trap was a fiberglass enclosure with a galvanized metal skirt along the bottom. The

1.8 m drop trap enclosed a 2.6 m² area. Traps were deployed from a front-mounted boom on a boat.

Process_Date: unknown

Process_Step:

Process_Description:

Measuring Environmental Variables:

Environmental data were collected immediately after gear deployment and before collection of animals. Water temperature, salinity, and D.O. data were collected within the sampler and a water sample was returned to the lab for turbidity analysis. Minimum and maximum water depth was taken and recorded to the nearest centimeter. Water depth was calculated as the midpoint between values.

Process_Date: unknown

Process_Step:

Process_Description:

Sampling of Nekton and Associated Plants:

The engine was turned off once the boat approached the sampling site to minimize site disturbance prior to sampling. The boat drifted or was slowly guided to the sampling site by pushing from the stern. One person in the boat released the trap from the bow. Immediately after drop sampler deployment, field personnel pushed the sampler approximately 15 cm into the sediment to obtain a proper seal along the bottom of the trap to prevent escape of organisms or a trap blow-out. If the sample was taken in a marsh, vascular plants enclosed in the sampler were clipped at ground level to assist in animal retrieval. Vegetation was placed in plastic bags, returned to the laboratory, identified and recorded to the lowest possible taxon.

Process_Date: unknown

Process_Step:

Process_Description:

Removal of Animals:

After the drop trap was pushed into the substrate, dip nets were used to sweep the bottom of the trap and remove the nekton. Enclosed water was pumped from the trap and filtered through a 1-mm mesh plankton net. As the water level dropped, the sampler was continually swept with dip nets because the efficiency of animal capture increases with reduced water depth. Once drained, the sediment was visually and manually inspected for animals remaining on or burrowed into the substrate. Animals taken in dip nets or found during substrate inspection were added to the drop trap catch. Animals and other material (i.e., vegetation, macro-algae, shell hash, and detritus) pumped into the cod end of the plankton net were rinsed and the catch bag was detached. Samples were placed in a 1-mm mesh bag, labeled, preserved, and returned to the laboratory for processing.

Process_Date: unknown

Process_Step:

Process_Description:

Care of Nekton Samples in the Field:

Labeled, waterproof shipping tags were placed inside

of each 1-mm mesh sample bag. Samples were stored in 3 or 5 gallon buckets containing 10 percent formalin. Ten percent formalin was made by mixing one part full-strength formaldehyde with nine parts water. If animals were too large to fit into the sample bag, the specimen was identified to the lowest taxon, measured, recorded and released.

Process_Date: unknown

Process_Step:

Process_Description:

Initial Processing of Field Data and Samples:

After returning from the field, samples were recorded in the laboratory log book. Sediment samples were organized and refrigerated or frozen until processed. Turbidity samples were analyzed upon return to the lab and the information was transferred to the field data sheets. Field data sheets were entered into an electronic database or a database manager. A printout was given to the Primary Investigator for review.

Process_Date: unknown

Process_Step:

Process_Description:

SPECIES IDENTIFICATION AND MEASUREMENT:

Penaeid shrimp were measured to the nearest millimeter total length (TL). 'Other decapods' were measured and placed in the nearest 5 mm TL or carapace width (CW) interval. Fish were measured to the nearest 10 mm TL. Each fish was measured after being placed flat on its side with its mouth closed. TL in fish was the distance from the snout to the tip of the longest caudal fin ray. TL in penaeids was measured from the tip of the rostrum to the tip of telson. If the rostrum was broken, TL was not measured. Carapace width (CW) of crabs was measured across the widest part of the carapace (from tip to tip of the lateral spines if present). If lateral spines were broken, CW was not measured. Hermit crabs were not measured.

Process_Date: unknown

Process_Step:

Process_Description:

Preservation and Storage of Fish and Invertebrates:

Organisms were preserved in 10 percent formaldehyde for long-term storage.

Process_Date: unknown

Process_Step:

Process_Description:

Measuring Biomass of Plants and Animals:

EMERGENT MARSH PLANTS:

Emergent marsh plants were sorted, identified, counted, and stored in mesh bags to air dry.

Process_Date: unknown

Process_Step:

Process_Description:

Organism Data Entry and Validation:

Laboratory and field data were entered into the computer using a database manager. A text file was created that described these data and any abbreviated variables. The data were printed out and checked against ID sheets to ensure all information was correct. Data corrections were made at this time. Hard copies of the file were given to the PI and stored in the project folder along with the original field and laboratory data sheets. A code was assigned to each species using the Fishery Ecology Branch revised species code list. Species not found on the code list were assigned a new code, which was also added to the master code file.

Process_Date: unknown

Entity_and_Attribute_Information:**Detailed_Description:****Entity_Type:**

Entity_Type_Label: Descriptive Information for Sample Sites

Entity_Type_Definition: Terms relating to collection of flora and fauna

Entity_Type_Definition_Source:

NOAA Fisheries Service, National Marine

Fisheries Service, Fishery Ecology Branch, Galveston, Texas

Attribute:

Attribute_Label: General Habitat Descriptor

Attribute_Definition: General description of habitat sampled

Attribute_Definition_Source:

NOAA Fisheries Service, National Marine

Fisheries Service, Fishery Ecology Branch, Galveston, Texas

Attribute_Domain_Values:**Enumerated_Domain:**

Enumerated_Domain_Value: Marsh

Enumerated_Domain_Value_Definition: *Spartina alterniflora* marsh

Enumerated_Domain_Value_Definition_Source:

NOAA Fisheries Service, National Marine

Fisheries Service, Fishery Ecology Branch, Galveston, Texas

Enumerated_Domain:

Enumerated_Domain_Value: Open water

Enumerated_Domain_Value_Definition: nonvegetated mud bottom

Enumerated_Domain_Value_Definition_Source:

NOAA Fisheries Service, National Marine

Fisheries Service, Fishery Ecology Branch, Galveston, Texas

Attribute:

Attribute_Label: Miscellaneous Descriptor

Attribute_Definition: General description of site sampled

Attribute_Definition_Source:

NOAA Fisheries Service, National Marine

Fisheries Service, Fishery Ecology Branch, Galveston, Texas

Attribute_Domain_Values:**Enumerated_Domain:**

Enumerated_Domain_Value: Edge

Enumerated_Domain_Value_Definition: Within 1 m of marsh edge

Enumerated_Domain_Value_Definition_Source:

NOAA Fisheries Service, National Marine
Fisheries Service, Fishery Ecology Branch, Galveston, Texas

Enumerated_Domain:

Enumerated_Domain_Value: Fringing
Enumerated_Domain_Value_Definition: Within 20 m of marsh edge
Enumerated_Domain_Value_Definition_Source:
NOAA Fisheries Service, National Marine
Fisheries Service, Fishery Ecology Branch, Galveston, Texas

Enumerated_Domain:

Enumerated_Domain_Value: Inner
Enumerated_Domain_Value_Definition: 5 m in from marsh edge
Enumerated_Domain_Value_Definition_Source:
NOAA Fisheries Service, National Marine
Fisheries Service, Fishery Ecology Branch, Galveston, Texas

Enumerated_Domain:

Enumerated_Domain_Value: Subtidal
Enumerated_Domain_Value_Definition: nonvegetated in erosion zone
Enumerated_Domain_Value_Definition_Source:
NOAA Fisheries Service, National Marine
Fisheries Service, Fishery Ecology Branch, Galveston, Texas

Enumerated_Domain:

Enumerated_Domain_Value: Intertidal
Enumerated_Domain_Value_Definition: lower intertidal of erosion zone
Enumerated_Domain_Value_Definition_Source:
NOAA Fisheries Service, National Marine
Fisheries Service, Fishery Ecology Branch, Galveston, Texas

Metadata_Reference_Information:

Metadata_Date: 20060103

Metadata_Contact:

Contact_Information:

Contact_Organization_Primary:
Contact_Organization:
NOAA Fisheries Service, National Marine Fisheries
Service, Fishery Ecology Branch, Galveston, Texas
Contact_Person: Dr. Jim Ditty

Contact_Address:

Address_Type: mailing and physical
Address: Galveston Laboratory, 4700 Avenue U
City: Galveston
State_or_Province: Texas
Postal_Code: 77551-5997
Country: Unites States of America
Contact_Voice_Telephone: 409-766-3500

Metadata_Standard_Name:

FGDC Content Standard for Digital Geospatial Metadata

Metadata_Standard_Version: FGDC-STD-001.1-1999